

WHAT IS CLAIMED IS:

1. A color image formation method comprising:

cutting a silver halide color photographic material into sheets, the photographic material having on a support photographic constituent layers including at least one blue-sensitive silver halide emulsion layer containing a yellow dye-forming coupler, at least one green-sensitive silver halide emulsion layer containing a magenta dye-forming coupler, at least one red-sensitive silver halide emulsion layer containing a cyan dye-forming coupler and at least one light-insensitive hydrophilic colloid layer;

subjecting the photographic material cut into sheets to imagewise exposure; and

subjecting the photographic material exposed imagewise to a photographic processing including a color development step, a bleach-fix step and a rinse step while transporting the photographic material with a pair of transport rollers,

wherein the transport of the photographic material during the photographic processing is performed at a speed of 27.8 mm/sec to 100 mm/sec, and

the silver halide color photographic material satisfies relations $1 > Q_y \geq 0.7$, $1 > Q_m \geq 0.5$ and $1 > Q_c \geq 0.7$ wherein Q_y , Q_m and Q_c are defined by the following equations:

$$Q_y = M_y / N_y$$

$$Q_m = M_m / N_m$$

$$Q_c = M_c / N_c$$

wherein Q_y , Q_m and Q_c represent coupler utilization rates of the yellow coupler, the magenta coupler and the cyan coupler, respectively, in the silver halide color photographic material; N_y , N_m and N_c represent amounts [mole/l] of the yellow coupler, the magenta coupler and the cyan coupler coated, respectively; and M_y , M_m and M_c represent amounts [mole/l] of yellow, magenta and cyan dyes, respectively, providing a Status-A gray density of 2.0 ± 0.5 .

2. A silver halide color photographic material comprising on a support photographic constituent layers including at least one blue-sensitive silver halide emulsion layer containing a yellow dye-forming coupler, at least one green-sensitive silver halide emulsion layer containing a magenta dye-forming coupler, at least one red-sensitive silver halide emulsion layer containing a cyan dye-forming coupler and at least one light-insensitive hydrophilic colloid layer,

wherein a color image is formed by an imagewise exposure and a photographic processing subsequent thereto which includes a color development step, a bleach-fix step and rinse step, in which the photographic processing is performed while transporting the photographic material in a state of sheets at a transport speed of 27.8 mm/sec to 100 mm/sec by means of transport rollers,

wherein the silver halide color photographic material satisfies relations $1 > Q_y \geq 0.7$, $1 > Q_m \geq 0.5$ and $1 > Q_c \geq 0.7$, wherein Q_y , Q_m and Q_c have the same meanings as defined in claim 1, respectively.

3. The silver halide color photographic material according to claim 2, wherein Q_m is from 0.50 to 0.80 and Q_c is from 0.70 to 0.85.

4. The silver halide color photographic material according to claim 2, wherein Q_y is from 0.70 to 0.80, Q_m is from 0.50 to 0.80 and Q_c is from 0.70 to 0.85.

5. The silver halide color photographic material according to claim 2, wherein the red-sensitive emulsion layer has a silver/coupler ratio (Ag/Cp) in the range of 2.87 to 6.41 by mole.

6. The silver halide color photographic material according to claim 2, wherein the green-sensitive emulsion layer has a silver/coupler ratio (Ag/Cp) in the range of 2.10 to 5.40 by mole.

7. The silver halide color photographic material according to claim 2, having the total gelatin content of 6.26

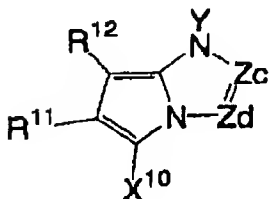
g/m² or below.

8. The silver halide color photographic material according to claim 2, having the total silver content of from 0.39 to 0.59 g/m²,

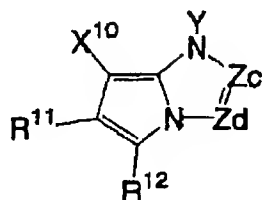
9. The silver halide color photographic material according to claim 2, having the total silver content of from 0.39 to 0.49 g/m².

10. The silver halide color photographic material according to claim 2, wherein the red-sensitive emulsion layer contains at least one coupler selected from couplers represented by the following formula (PTA-I), couplers represented by the following formula (PTA-II) and couplers represented by the following formula (IA);

(PTA-I)



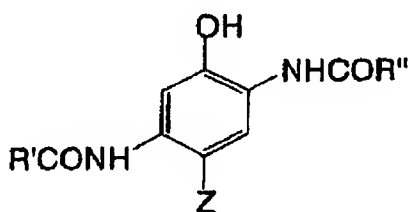
(PTA-II)



wherein Zc and Zd each represent -C(R¹³)= or -N=, provided that, when one of Zc or Zd is -C(R¹³)=, the other is -N=; R¹³ represents a hydrogen atom or a substituent group; R¹¹ and R¹² each represent an electron attracting group having a Hammett's σ_p value of at

least 0.2, and the total σ_p values of R^{11} and R^{12} is at least 0.65; X^{10} represents a hydrogen atom or a group capable of being released by coupling reaction with the oxidation product of an aromatic primary amine color developing agent; Y represents a hydrogen atom or a group being released in the process of color development; any of R^{11} , R^{12} , R^{13} and X^{10} may be a divalent group to form a polymer of dimer or more, or to bond to a polymer chain to form a homopolymer or a copolymer:

(IA)



wherein R' and R'' each represent a substituent, and Z represents a hydrogen atom or a group capable of being released by coupling reaction with the oxidation product of an aromatic primary amine color developing agent.

11. The silver halide color photographic material according to claim 2, wherein the support is a reflective support.

12. The color image formation method according to claim 1, wherein the color development step has a processing time of from 5 to 27 seconds and a processing temperature of from 43°C

to 60°C.

13. The color image formation method according to claim 1, wherein the bleach-fix step has a processing time from 5 to 30 seconds and a replenishment rate of from 20 to 50 mL per m² of the photographic material.

14. A color image formation method comprising:

cutting a silver halide color photographic material into sheets, the photographic material having on a support photographic constituent layers including at least one blue-sensitive silver halide emulsion layer containing a yellow dye-forming coupler, at least one green-sensitive silver halide emulsion layer containing a magenta dye-forming coupler, at least one red-sensitive silver halide emulsion layer containing a cyan dye-forming coupler and at least one light-insensitive hydrophilic colloid layer;

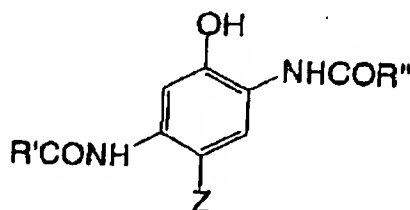
subjecting the photographic material cut into sheets to imagewise exposure; and

subjecting the photographic material exposed imagewise to a photographic processing including a color development step, a bleach-fix step and a rinse step while transporting the photographic material with a pair of transport rollers,

wherein the transport of the photographic material during the photographic processing is performed at a speed of 27.8 mm/sec

to 100 mm/sec, the bleach-fix step has a replenishment rate of from 20 to 50 mL per m² of the photographic material and at least one of the red-sensitive silver halide emulsion layers contains at least one coupler selected from compounds represented by the following formula (IA);

(IA)



wherein R' and R'' each represent a substituent, and Z represents a hydrogen atom or a group capable of being released by coupling reaction with the oxidation product of an aromatic primary amine color developing agent.

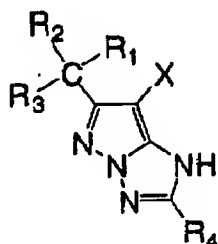
15. The color image formation method according to claim 14, wherein the imagewise exposure is performed with a scanning exposure system having an exposure time per pixel of less than 10⁻³ second.

16. The color image formation method according to claim 14, wherein the silver halide color photographic material has a total silver content of 0.46 g/m² or below.

17. The color image formation method according to claim

14, wherein at least one of the green-sensitive silver halide emulsion layers contains at least one selected from compounds represented by the following formula (M-II);

(M-II)



wherein R₁, R₂, R₃ and R₄ each represent a hydrogen atom or a substituent, and X represents a hydrogen atom or a group capable of being released by reaction with the oxidation product of an aromatic primary amine developing agent.

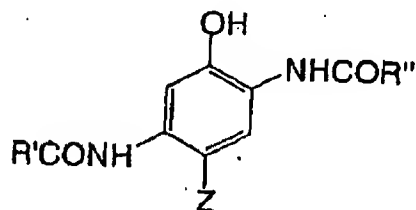
18. The color image formation method according to claim 14, wherein the bleach-fix step has a processing time of from 12 to 30 seconds.

19. A silver halide color photographic material comprising photographic constituent layers including at least one yellow dye-forming coupler containing blue-sensitive silver halide emulsion layer, at least one magenta dye-forming coupler containing green-sensitive silver halide emulsion layer, at least one cyan dye-forming coupler containing red-sensitive silver halide emulsion layer and at least one light-insensitive

hydrophilic colloid layer,

wherein a color image is formed by an imagewise exposure and a photographic processing subsequent thereto, which the photographic processing includes a color development step, a bleach-fix step having a replenishment rate of 20 to 50 ml per m² of the photographic material and a rinse step, in which the photographic processing is performed while transporting the photographic material cut into sheets at a transport speed of from 27.8 mm/sec to 100 mm/sec by means of transporting rollers, and at least one of the red-sensitive silver halide emulsion layers further contains at least one selected from compounds represented by the following formula (IA):

(IA)



wherein R' and R'' each represent a substituent, and Z represents a hydrogen atom or a group capable of being released by coupling reaction with the oxidation product of an aromatic primary amine color developing agent.

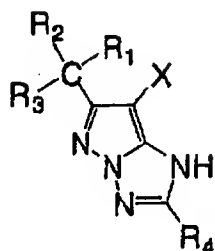
20. The silver halide color photographic material according to claim 19, wherein the imagewise exposure is

performed with a scanning exposure system having an exposure time per pixel of less than 10^{-3} .

21. The silver halide color photographic material according to claim 19, having a total silver content of 0.46 g/m² or below.

22. The silver halide color photographic material according to claim 19, wherein at least one of the green-sensitive silver halide emulsion layers contains at least one selected from compounds represented by the following formula (M-II):

(M-II)



wherein R₁, R₂, R₃ and R₄ each represent a hydrogen atom or a substituent, and X represents a hydrogen atom or a group capable of being released by reaction with the oxidation product of an aromatic primary amine developing agent.

23. The silver halide color photographic material according to claim 19, wherein the bleach-fix step has a processing time of from 12 to 30 seconds.

24. A color image formation method comprising;

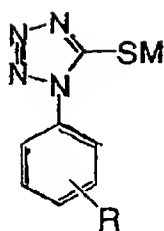
cutting a silver halide color photographic material into sheets, the photographic material having on a support photographic constituent layers including at least one blue-sensitive silver halide emulsion layer containing a yellow dye-forming coupler, at least one green-sensitive silver halide emulsion layer containing a magenta dye-forming coupler, at least one red-sensitive silver halide emulsion layer containing a cyan dye-forming coupler and at least one light-insensitive hydrophilic colloid layer;

subjecting the photographic material cut into sheets to imagewise exposure; and

subjecting the photographic material exposed imagewise to a photographic processing including a color development step, a bleach-fix step and a rinse step,

wherein the transport of the photographic material during the photographic processing is performed at a speed of 27.8 mm/sec to 100 mm/sec, the bleach-fix step has a processing time of 1 to 30 seconds and at least one of the silver halide emulsion layers comprises a silver halide emulsion containing at least one compound represented by the following formula (I) and having a silver chloride content of at least 90 mole %;

(I)



wherein M represents a cation, and R represents an atom having an atomic weight of not more than 100 or a group having a total atomic weight of not more than 100.

25. The color image formation method according to claim 24, wherein the silver halide emulsion layer contains silver halide grains having a silver chloride content of at least 90 mole % and a silver iodide content of from 0.05 to 1 mole %.

26. The color image formation method according to claim 24, having a total silver content of from 0.01 to 0.45 g/m².

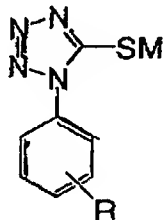
27. A silver halide color photographic material comprising photographic constituent layers including at least one yellow dye-forming coupler containing blue-sensitive silver halide emulsion layer, at least one magenta dye-forming coupler containing green-sensitive silver halide emulsion layer, at least one cyan dye-forming coupler containing red-sensitive silver halide emulsion layer and at least one light-insensitive hydrophilic colloid layer,

wherein a color image is formed by an imagewise exposure

and a photographic processing subsequent thereto, which the photographic processing includes a color development step, a bleach-fix step having a processing time of 1 to 30 seconds and a rinse step, in which the photographic processing is performed while transporting the photographic material cut into sheets at a transport speed of from 27.8 mm/sec to 100 mm/sec by means of transporting rollers,

wherein at least one of the silver halide emulsion layers comprises an silver halide emulsion containing at least one compound represented by the following formula (I) and having a silver chloride content of at least 90 mole %:

(I)



wherein M represents a cation, and R represents an atom having an atomic weight of not more than 100 or a group having a total atomic weight of not more than 100.

28. The silver halide color photographic material according to claim 27, wherein the silver halide emulsion layer contains silver halide grains having a silver chloride content of 90 mole % or higher and a silver iodide content of from 0.05

to 1 mole %.

29. The silver halide color photographic material according to claim 27, having a total silver content of from 0.01 to 0.45 g/m².

30. A color image formation method comprising:

cutting a silver halide color photographic material into sheets, the photographic material having on a support photographic constituent layers including at least one yellow dye-forming coupler containing blue-sensitive silver halide emulsion layer, at least one magenta dye-forming coupler containing green-sensitive silver halide emulsion layer, at least one cyan dye-forming coupler containing red-sensitive silver halide emulsion layer and at least one light-insensitive hydrophilic colloid layer;

subjecting the photographic material cut into sheets to imagewise exposure; and

subjecting the photographic material exposed imagewise to a photographic processing including a color-development step while transporting them through a color developer, a bleach-fix step and a rinse step,

wherein the color developer is adjusted to a temperature within the range of 43°C to 60°C, the color-development step has a processing time of 27 seconds or shorter, the transport

of the photographic material through the color developer is performed at a linear speed of 27.8 mm/sec to 100 mm/sec, and at least one of the silver halide emulsion layers comprises the silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a silver chloride content of at least 90 mole %.

31. A color image formation method comprising:

cutting a silver halide color photographic material into sheets, the photographic material having on a support photographic constituent layers including at least one yellow dye-forming coupler containing blue-sensitive silver halide emulsion layer, at least one magenta dye-forming coupler containing green-sensitive silver halide emulsion layer, at least one cyan dye-forming coupler containing red-sensitive silver halide emulsion layer and at least one light-insensitive hydrophilic colloid layer;

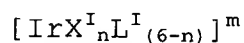
subjecting the photographic material cut into sheets to imagewise exposure; and

subjecting the photographic material exposed imagewise to a photographic processing including a color-development step while transporting through a color developer, a bleaching step and a rinse step,

wherein the color developer is adjusted to a temperature within the range of 43°C to 60°C, the color-development step

has a processing time of 27 seconds or shorter, the transport of the photographic material through the color developer is performed at a linear speed of 27.8 mm/sec to 100 mm/sec, and at least one of the silver halide emulsion layers comprises silver halide grains containing at least one metal complex represented by the following formula (I) and having a silver chloride content of at least 90 mole %:

(I)



wherein X^{I} represents a halogeno ion, or a pseudo halogeno ion other than a cyanato ion, L^{I} represents any ligand different from X^{I} , n represents 3, 4 or 5, and m represents an integer of -4 to +1.

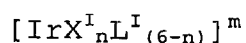
32. The color image formation method according to claim 30, wherein the silver halide grains contains silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and has a silver chloride content of at least 90 mole %, in which a maximum content area of silver iodide is localized outside of 50 % of the volume of each individual grains.

33. The color image formation method according to claim 30, wherein the blue-sensitive silver halide emulsion includes the silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a

silver chloride content of at least 90 mole %.

34. The color image formation method according to claim 30, wherein the silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a silver chloride content of at least 90 mole %, further contains at least one metal complex represented by the following formula (I);

(I)

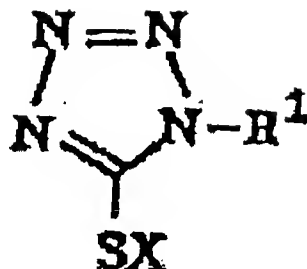


wherein X^{I} represents a halogeno ion, or a pseudo halogeno ion other than a cyanato ion, L^{I} represents any ligand different from X^{I} , n represents 3, 4 or 5, and m represents an integer of -4 to +1.

35. The color image formation method according to claim 30, wherein the emulsion layer comprising the silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a silver chloride content of at least 90 mole %, contains a compound represented by the following formula (III) in an amount satisfying a relation $1.0 \times 10^{-4} < M \cdot l < 2.5 \times 10^{-4}$ wherein M represents a total content by mole of the compounds of formula (III) per mole of silver halide in the emulsion layer and l represents a volume weighted average sphere-equivalent diameter (μm) of the silver halide grains in

the emulsion layer;

(III)



wherein R^1 represents an alkyl group, an alkenyl group or an aryl group, and X represents a hydrogen atom, an alkali metal atom, an ammonium group or a precursor thereof.

36. The color image formation method according to claim 30, wherein the silver halide photographic material has a total silver content of 0.2 g/m^2 to 0.48 g/m^2 .

37. A silver halide color photographic material comprising on a support photographic constituent layers including at least one yellow dye-forming coupler containing blue-sensitive silver halide emulsion layer, at least one magenta dye-forming coupler containing green-sensitive silver halide emulsion layer, at least one cyan dye-forming coupler containing red-sensitive silver halide emulsion layer and at least one light-insensitive hydrophilic colloid layer,

wherein an image is formed by being cut into sheets and transported through a color developer having its temperature

within the range of 43°C to 60°C for 27 seconds or shorter at a linear speed of at least 27.8 mm/sec by means of either a pair of transporting rollers or belt conveyer,

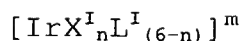
wherein at least one of the silver halide emulsion layers comprises silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a silver chloride content of at least 90 mole %.

38. A silver halide color photographic material comprising on a support photographic constituent layers including at least one yellow dye-forming coupler containing blue-sensitive silver halide emulsion layer, at least one magenta dye-forming coupler containing green-sensitive silver halide emulsion layer, at least one cyan dye-forming coupler containing red-sensitive silver halide emulsion layer and at least one light-insensitive hydrophilic colloid layer,

wherein the image is formed by being cut into sheets and transported through a color developer having the temperature within the range of 43°C to 60°C for 27 seconds or shorter at a linear speed of at least 27.8 mm/sec by means of either a pair of transporting rollers or a belt conveyer,

wherein at least one of the silver halide emulsion layers further comprises silver halide grains containing at least one metal complex represented by the following formula (I) and having a silver chloride content of at least 90 mole %:

(I)



wherein X^{I} represents a halogeno ion, or a pseudo halogeno ion other than a cyanato ion, L^{I} represents any ligand different from X^{I} , n represents 3, 4 or 5, and m represents an integer of -4 to +1.

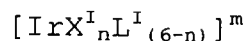
39. The silver halide color photographic material according to claim 37, wherein the silver halide grains contains silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and has a silver chloride content of at least 90 mole %, in which a maximum content area of silver iodide is localized outside of 50 % of the volume of each individual grains.

40. The silver halide color photographic material according to claim 37, wherein the blue-sensitive silver halide emulsion comprises the silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a silver chloride content of at least 90 mole %.

41. The silver halide color photographic material according to claim 37, wherein the silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a silver chloride content of at least 90 mole %, further contains at least one metal complex

represented by the following formula (I):

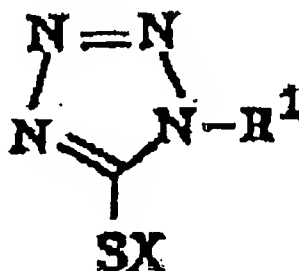
(I)



wherein X^{I} represents a halogeno ion, or a pseudo halogeno ion other than a cyanato ion, L^{I} represents any ligand different from X^{I} , n represents 3, 4 or 5, and m represents an integer of -4 to +1.

42. The silver halide color photographic material according to claim 37, wherein the emulsion layer comprising the silver halide grains containing silver iodide in a proportion of 0.05 to 1 mole % to one mole of silver halide and having a silver chloride content of at least 90 mole %, further contains a compound represented by the following formula (III) in an amount satisfying a relation $1.0 \times 10^{-4} < M \cdot l < 2.5 \times 10^{-4}$, wherein M represents a total content by mole of the compounds of formula (III) per mole of silver halide in the emulsion layer and l represents a volume weighted average sphere-equivalent diameter (μm) of the silver halide grains in the emulsion layer;

(III)



wherein R¹ represents an alkyl group, an alkenyl group or an aryl group, and X represents a hydrogen atom, an alkali metal atom, an ammonium group or a precursor thereof.

43. The silver halide color photographic material according to claim 37, havin a total silver halide content of 0.2 g/m² to 0.48 g/m².